THE FARM INDEX

U. S. Department of Agriculture
April 1974

Behind the bigger tab for groceries

Outlook

The financial prognosis for 1974 shows most farmers closing out the year in "favorable" condition. Contributing are continued high net farm income and relative ease in getting loans for capital purchases and production expenses.

Annual capital formation and use of funds to buy real estate from owners leaving farming is forecast at $25 billion. Some $13 billion will be financed out of current income, with the remaining $12 billion to be borrowed.

Farm debt is projected to reach $94 billion by January 1, 1975, up 14 percent from a year earlier. Total assets should swell 13 percent to around $521 billion. This translates into a modest rise in the farm debt-to-asset ratio to 18 percent.

Forecasters say this year's farm income will possibly be $1 to $2 billion below last year's record $26 billion. Reasons for the dropoff include reduced farm program payments and accelerating production costs.

But, say economists, lower-than-expected livestock and grain output—which would boost prices—or a surge in exports could push income over last year's mark. On the other hand, a sudden decrease in exports later this year could cause grain prices to trail off and income to drift lower than indicated.

Expect the tobacco barn to be a little fuller this year. Growers say they'll boost plantings about a tenth over last year's 890,000 harvested acres to keep up with next season's demand.

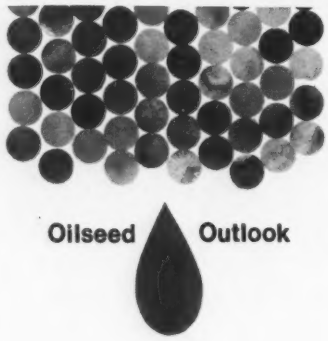
An increase of 50,000 acres is in prospect for flue-cured, while burley acreage could expand some 37,700 acres, due to a bigger basic quota and large carryover of last year's below-quota output.

USDA is estimating a 2-billion pound crop, about 14 percent over last year. But tight supplies and escalating fuel and fertilizer prices might stifle the increase. And with a smaller expected carryover, supplies may hover at 1973/74 levels.

The uncertainties veiling the cotton picture in March haven't cleared up. As of early April, generally inadequate subsoil moisture continued to plague the High Plains of Texas, and throughout the Cotton Belt the supplies were tight for fuel, chemicals, machinery, and fertilizer.

But perhaps the most critical factor, according to ERS cotton specialists, is the unstable price situation. Prices have been in a slump since January. Further weakening could prompt some cotton producers to switch some acreage intended for cotton to competitive crops.

If farmers plant 14.7 million acres as indicated in the March 1 intentions survey and yields hold up, cotton production would moderately exceed prospective disappearance in 1974/75. Mill use next season is projected to increase a little to around 7¾ million bales but exports may slip somewhat to 5½ million.



Combined production of the big four oilseed crops this year looks to be not much different from 1973 if yields are on trend.

Soybeans. Producers in the March survey said they'd plant 55 million acres—some 2¼ million under last year's record. Projecting yields at 28.5 bushels per acre, the 1974 production would come to over 1.5 billion bushels and total 1974/75 supplies, to a new high of 1.8 billion. Soybean use will not quite keep pace with prospective output, resulting in a further buildup in carryover on September 1, 1975. Soybean oil prices will stay on the high side, but meal prices in April-September will average sharply below a year ago.

Peanuts. Growers intend to plant 1½ million acres, not much change from 1973. If plans are carried out and yields are on trend, the 1974 peanut crop would total 3½ billion pounds—a new record. Spurred by bigger demand for peanut butter, edible use this marketing year is expected to total around 1.9 billion pounds, up from 1.7 billion in 1972/73.

Cotton. Producers expect to plant about a fifth more than last year, or nearly 15 million acres. But due to smaller carryover next August 1, cottonseed supplies in 1974/75 will be about the same as in the current season. Cottonseed oil prices in April-July will average much higher than a year earlier in response to exceptionally good demand for vegetable oils.

Flaxseed. Plantings are indicated at 1.8 million acres, up slightly from last year. Though total supplies could rise 8 percent, supplies will remain tight and prices will continue high.

Hog prices at seven major markets might not come up to last year's performance in second half 1974. That's the situation indicated by the latest hogs and pigs report which suggests some increase in July-December slaughter supplies over a year earlier.

ERS livestock watchers expect prices to strengthen seasonally to a summer peak in the low $40's a hundredweight, then to decline into the middle $30's by fall. On balance, the outlook calls for second half prices to average $4 to $5 below last year's July-December average of $45.

Wrapping up the 1973 story, ERS economists said the high feed costs caused some changes in hog rations that slowed weight gains during much of the second half. Also, producers in the fall tended to hold back hogs for sale after the first of the year. In 1974 protein feed prices will be well below last year and the incentive to hold hogs will not be great, so a more normal slaughter can be expected.

Availabilities of nitrogen fertilizers will permit only slight increases in applications on 1974 crops. Supply is estimated 8 percent greater than last year but this is still about a half million tons short of what farmers could

use for this year's harvest.

By contrast, application rates of phosphates may dip . . . possibly as much as 5 percent compared with a year ago. Phosphate supplies are seen about the same or even smaller than in 1973, and about 5 percent more crop acres will be harvested this year.

ERS fertilizer experts are fairly optimistic nonetheless about the overall effects on yields. The higher application rates for nitrogen will help. As for phosphates, farmers generally have applied more phosphates than the crop needs so as to build up soil reserves. Too, weather so far has favored plantings.

A record rice crop may be in the making this year. In response to larger acreage allotments and record prices, farmers in March indicated they would seed 2.4 million acres—up 200,000 acres over January intentions.

A return to more normal yields could push the '74 rice crop to a recordsmashing 111 million hundredweight, sending supplies to a new high also.

Favorable weather conditions allowed plantings to get off to an early start in major rice States. Preliminary field work in early April was 80-90 percent complete in Arkansas, while Texas and Louisiana reported field preparation and plantings well ahead of the '73 pace.

Foreign and domestic rice demand will probably remain hefty through 1974/75, with food and brewer use continuing to climb. Adding to demand are world wheat supplies, seen extremely tight until late this year.

Wholesale broiler prices in April-June are expected to average a bit lower than the 42 cents a pound of the 1973 period. Summer prices will probably be down too. Higher production explains the weaker prices. March-April output will be up an estimated 5 percent from last year, and summer's production is likely to be bigger than last year. The outlook for fall depends on what happens to feed crops and to supplies and prices of beef and pork.

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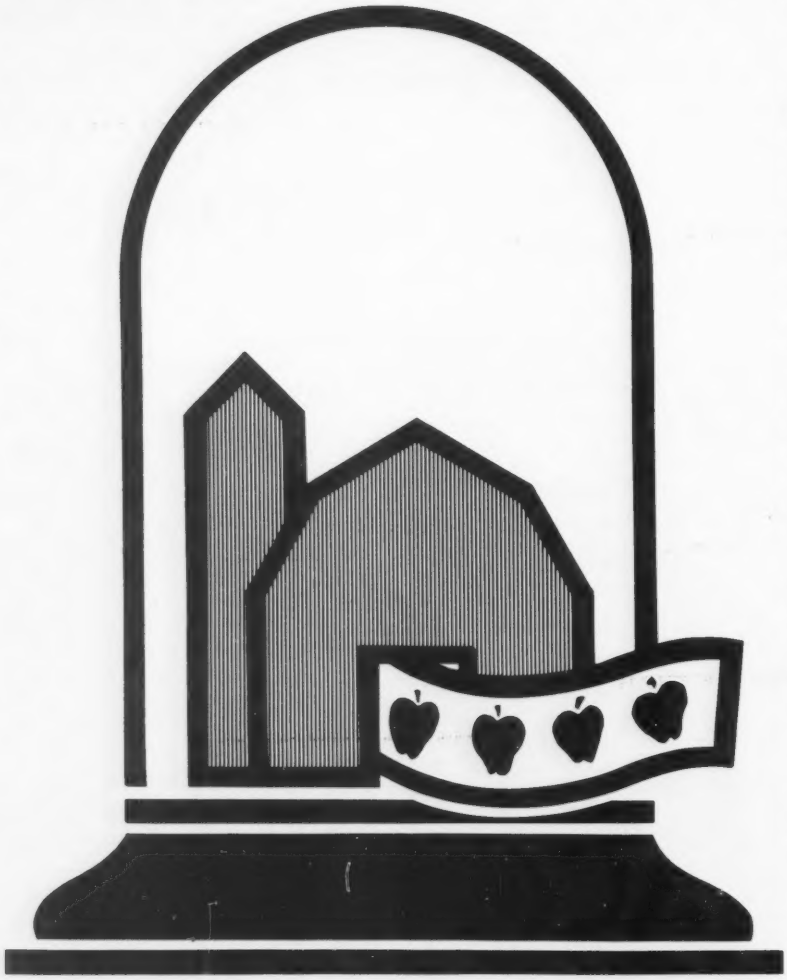
THE FARM–AGRIBUSINESS HOOKUP



With the cooperation of Dun and Bradstreet, ERS identified 410 firms that combine farming with other businesses . . . and learned they are quite selective when it comes to farm commodities.

When an agribusiness firm decides to hook up with farming, it's not likely to latch on to just any farm enterprise.

A recent ERS study of 410 firms with both farm and nonfarm operations found some common bonds in the types of agriculture these firms went into.

There was quite a spread in the firms' annual sales, ranging from $1 million a year to over $500 million. A few had gross sales in the billions.

Most, however, seemed to be attracted to farm enterprises that require a lot of labor and management savvy. The commodities they produced also shared certain traits—they are highly perishable and subject to wide variations in quality.

Basing their analysis on data provided by Dun and Bradstreet, the researchers identified 10 major types of farming among the 410 firms. Four commodities stood out from the rest.

Most commonly produced were beef cattle—27 percent of the firms produced this commodity—followed by vegetables at 18 percent, poultry other than broilers, 18 percent, and fruits, 17 percent.

Researchers also classified the firms by primary business or industrial activity: farms, suppliers of agricultural inputs, agricultural processors, agricultural distributors, and nonagricultural activities.

Big on farming. Over a third of the firms (149) gave farming as their main business. Of these, 18 percent were mainly fruit producers, the same proportion were primarily vegetable producers, and 17 percent were mainly beef cattle producers.

Supplying agricultural inputs was the chief activity of 52 firms, nearly half of them being feed manufacturers. Feed manufacturers, together with poultry hatcheries and distributors of farm equipment and supplies, accounted for over 95 percent of all the input firms.

Agricultural processors, numbering 57, largely dealt in dairy products and fruits and vegetables. With meat packers, these firms made up over two-thirds of all processors.

Sixty-four of the firms were agricultural distributors. Wholesalers of fruit and vegetables, poultry, and other farm products accounted for over four-fifths.

Firms primarily engaged in nonagricultural businesses counted 88, 40 percent of which were in land-based industries such as mineral extraction, forestry, and real estate development. Next were trade and service firms (31 percent), manufacturing firms (28 percent), and conglomerates (20 percent).

Taking a closer look at the firms which made farming their main business, the most commonly produced

commodities were vegetables, beef cattle, and fruit and tree nuts.

Farm suppliers. Firms specializing in farm inputs went heavily into poultry production (other than broilers), with broilers a distant second. A significant number of the nonbroiler poultry operations, however, were breeder flocks for broiler hatching eggs.

The agricultural processors were big on dairy, beef cattle, fruits, vegetables, and poultry other than broilers. Except for dairy, the agricultural distribution firms also concentrated on these commodities.

In the nonagricultural category, beef cattle headed the list, followed by fruits and grains.

Nonfarm types. As was true for the 410 firms as a group, those whose main business was not farming mostly produced fruits and vegetables, poultry other than broilers, and beef cattle. Most of the cattle were produced in feedlots. A smaller but significant number of these firms were involved in broiler and dairy production.

The nonfarm agribusiness firms, the ERS study said, prefer intensive types of agriculture because they readily lead themselves to the industrial production techniques already used by these firms. And since less land is needed than for, say, grain or range livestock production, management resources can be used more effectively. Too, intensive farming requires a large volume of capital inputs, which are relatively easy for industrialized firms to get.

Makes sense. To processors and distributors, it makes good business sense to get into farming because they generally deal in perishable items and because the market demands products of uniform quality.

Perishability and product quality both bear on the ability of a processing or distribution firm to meet the market requirements for finished food products.

Production schedules for perishable commodities must be closely coordinated with processing schedules and marketing. One way to do that is to run your own farm. Direct ownership likewise enables better control of product quality than by dealing with large numbers of independent farmers.

For the firms studied, much of the integration involving livestock commodities was oriented toward inputs, dairy excepted, as opposed to marketing activities. From half to all of the beef cattle and poultry farm firms were integrated into inputs, principally feed manufacturing. The reverse held true for crop and dairy production, which was usually coordinated with the marketing functions.

This strongly suggests that the basic motivating factors for vertical integration in most livestock production enterprises is related to the input-production linkage. Vertical integration in crop and dairy enterprises, on the other hand, appears to be motivated mainly by the need for coordination between the production and marketing stages.

Just large farms. Production of cotton, cash grains, and range livestock was largely confined to firms that claimed farming as their first interest and to firms primarily engaged in nonagricultural activity. Integration with other agribusiness functions was limited. The ERS study said these farms were basically nothing more than large farms.

The nonagricultural firms producing these commodities were mainly conglomerates and firms with land-based activities.

[Based on an article by Donn A. Reimund, National Economic Analysis Division, entitled "Farming Enterprises of Large Multi-Establishment Firms," *Marketing and Transportation Situation*, MTS-192, February 1974.]

"Dying Small Towns"

The U.S. has dying small towns all right, but their extent has been overblown.

Part of the problem has to do with semantics. The term "small town" has no precise meaning: to some people it's a modest-sized country trading center, while to others it's any nonmetropolitan place, including towns with up to 50,000 people.

Census data show only places with less than 300 people were more likely than not to have decreasing populations in the 1960's. Even so, towns of this size had improved population retention compared with the 1950's.

We do have some places that could literally be called "dying small towns" but they are typically confined to the smallest class of towns that have never had a wide range of urban services. The great majority of all nonmetropolitan places are increasing in population.

[Based on special material by Calvin L. Beale, Economic Development Division.]

FARMING ACTIVITIES OF 410 MULTI-ESTABLISHMENT FIRMS

Commodities produced	Farms	Main Business Activity				All firms
		Agricultural inputs	Agricultural processing	Agricultural distribution	Nonagricultural	
		Number of firms				
Cotton	11	—	—	1	3	15
Cash grain	11	4	3	3	10	31
Other field crops	13	2	3	3	7	28
Fruit and tree nuts	35	1	10	9	15	70
Vegetable	39	2	10	15	9	75
Dairy	17	1	14	2	6	40
Broiler	12	13	3	9	3	40
Other poultry	18	29	9	13	5	74
Beef cattle	37	7	12	18	37	111
General and other farms	24	8	9	5	24	70
Total firms[1]	149	52	57	64	88	410

[1] The number of firms is less than the number of farm enterprises because some firms are engaged in multiple farming enterprises.
Source: Dun and Bradstreet Complex Business File.

Equity Financing Looms on the Farm Scene

Equity financing may become an important way of raising funds for the farm sector if present trends in farm size continue.

Writing in a forthcoming issue of *Agricultural Finance Review*, two ERS economists project that by 1990 the financial institutions serving agriculture today will still provide a large amount of loan funds. But equity financing through the sale of securities in the open market could assume a key role in the event farm production moves toward corporate ownership of production with hired management and hired labor. The economists speculate this could happen without too much departure from present trends in farm size.

Under family farms. Another possibility is that agriculture will be dominated by a large number of smaller family farms. But a basically family farm system, where the operator makes most of the decisions and furnishes much of the labor, would buck the trend.

In this situation the sources of funds would be much the same as today, although financial institutions would need to revise and liberalize their lending policies to make sufficient funds available to more young operators getting started in farming.

Census on trend. The trend toward larger farm units is shown in the last two Censuses of Agriculture. Between the census of 1964 and the 1969 census, farm numbers decreased 13 percent and the mix of farm sizes changed significantly. Part-time farms dropped about 10 percent, while other farms with sales of under $2,500 went down almost 40 percent. By contrast, the number of large farms with sales of over $100,000 rose 65 percent.

Since large farm units tend to have higher debt-to-asset ratios than smaller units, their reliance on external financing is greater. Their capital requirements often exceed the lending capacity of local financial institutions, so they are more and more turning to investment funds as opposed to loan funds.

Owners vs. managers. This equity financing will bring changes in traditional ways of farming, the economists predict. For one thing—and assuming a relatively small number of large farms prevail—equity financing would separate the farm ownership and farm management functions, with today's farm operator acting as the manager. He would have to obtain the owner's approval on how he uses the owner's resources. But he would also be able to assemble a larger package of resources than at present.

For an unincorporated business there could be problems in maintaining continuity of both ownership and management. Thus, equity financing might lead to a situation where the land and major inputs are provided by corporations and the management and lesser inputs by the operator. His returns would be based on the unit's production and his investment in machinery, livestock, labor, and management.

Manager's income. Farm units would be large enough to provide the operators with an income comparable to managers in industry. The small part-time farm would not disappear but its share of total production would be further reduced.

The markets and input industries under the large farm scenario would be similar to those of today, except more of the production would be under contract so as to lock in the prices received.

Even with the expected growth of equity financing, large amounts of loan funds would be needed. Most of the institutional loan funds would continue to come from life insurance companies, Federal land banks, production credit associations, and large city banks. Rural banks could still provide a portion of the big loans if they pooled their loan funds under such arrangements as credit corporations. The small farm production units would still rely upon local banks and other local lenders.

Getting a bargain. Traditionally, farm lenders have generally set a uniform interest rate for all farm loans. All borrowers who meet the risk and repayment standards are eligible. As production units get bigger, however, the risks may vary widely. Each loan would have to be appraised on its own merits, and this could put farm borrowers in a good position to bargain on loan terms and costs.

Land contracts, where the lender retains title in exchange for a minimal downpayment, would become less common, possibly to be phased out by 1990. The large farms would not need this type of financing.

Corporate takeover. What if agricultural production falls in the hands of corporations . . . i.e., corporate ownership of all production resources with hired managers and laborers. The small part-time farms would not fade out, the economists believe. These farms do not depend on farm output for their survival, rather they are more residential in nature. Their biggest problem would be finding markets for their products.

A corporate structure has pros and cons, however. The pros include—

Get in Line

In the 1960's economists were saying the value of farm assets would tower to $490 billion by 1980.

That projection has since gone out the window. In fact, ERS's latest forecast for assets on January 1, 1975, puts the figure at $521 billion, up from about $460 billion at the start of this year.

Now it's considered likely that farm asset values could reach up to $800 billion by 1980 if farm income remains favorable.

How will these capital needs be financed? To a large extent, probably not out of the farmer's annual income. Odds are he will have to go out into the marketplace for external funds, competing side-by-side with the nonfarm firms.

A corporation can generally get better management than a sole proprietorship or a partnership.

It has easier access to outside funds since the management is continuous, the unit can be divided into smaller shares, and the life of the unit does not depend on the survival of one individual.

Large corporations could minimize risk and uncertainty by controlling inputs, marketing, and to some extent prices.

Drawbacks. The disadvantages are—

Corporation control of production would change the social structure in rural areas making it similar to that in industrialized areas.

The financing - marketing - input system would change.

With a few large firms doing most of the producing, the genetic makeup of plants and animals would become more uniform. This could be serious if disease or predators strike a particular crop or animal.

On the finance end, the small rural banks might not be involved in farm loans at all, except loans to part-time farmers, unless they pooled their resources. Farm credit agencies as we know them might have only the part-timer as a client.

The chief means of finance would be the sale of securities in the capital markets, with the loan funds supplied mainly by big city banks. Insurance companies would still take an active part because they are structured to make large corporate loans.

Of the three scenarios considered —relatively few large farms, corporate structure, and a large number of smaller family farms—the latter may be the least likely to prevail. The economists said, "If society continues to place high social value on the concept of the family farm, policymakers must develop policies to reverse present trends."

[Based on manuscript by Allen G. Smith and Kenneth R. Krause, National Economic Analysis Division, entitled Financing Future Farm Production: A Look at Three Alternative Scenarios, to appear in *Agricultural Finance Review.*]

War on Farm Pests Heightens, Survey Finds

The farmer's never-ending fight against insects and other pests was intensified in the late 1960's as use of pesticides reached record proportions.

A new ERS report on a nationwide survey of farmers' production expenditures reveals pesticide use went up an estimated 40 percent between 1966 and 1971 to around 494 million pounds, excluding sulfur and petroleum.

This represented nearly 60 percent of all pesticides used in the U.S. for 1971, the remainder having been used by Government, industry, and homeowners. Farmers accounted for about 27 percent of the fungicides, 63 percent of the herbicides, and over half the insecticides. The value of farm pesticides came to over $1 billion.

Herbicides were responsible for much of the growth in farm pesticide applications since 1966. Purchases doubled in the 1966-71 period to around 228 million pounds, and herbicides' share of all pesticides rose from a third in 1966 to close to half in 1971.

Total fungicide use increased 25 percent from 1966 and insecticide use, 14 percent.

About 94 percent of the farm use of pesticides in 1971 was on growing crops. Nearly half of all herbicides was used on corn.

Almost half of the insecticides—45 percent—was used by farmers in the Southeast and Delta States, whereas Corn Belt farmers were the biggest buyers of herbicides, accounting for a third of total farm use.

As the leading herbicide, atrazine made up a fourth of all herbicides. Another 25 percent consisted of propachlor, alachlor, amibem, and trifluralin. The relative importance of 2,4-D dropped from 35 percent of total herbicide use in 1966 to 15 percent in 1971.

Leading insecticides were toxaphene, methyl, parathion, and carbaryl. They accounted for almost half of the insecticides used in 1971. Organochlorines showed decreases whereas organophosphorus and carbamate products increased.

Farmers use a variety of insecticide products to control livestock insect pests. However, the proportion of all insecticides going for livestock is small—less than a tenth of all insecticides used by farmers in 1971. That year they applied about 14.8 million pounds on livestock or livestock premises, an increase of almost 38 percent from 1966.

[Based on manuscript by Paul A. Andrilenas, National Economic Analysis Division, entitled Quantities of Pesticides Used by Farmers in 1971.]

Grain Elevator Costs Climb 17 Pct. in 3 Years

Commercial grain elevators can expect to handle larger volumes in fiscal 1974/75, although rising prices of inputs will offset the added business and result in higher per bushel costs to the elevators.

Based on data collected in a 1971/72 survey and estimating subsequent cost changes, storing and handling book costs in fiscal 1975 will average an estimated 9.7 cents a bushel—a 17-percent increase from 3 years earlier.

The replacement cost, or the cost incurred by new elevators entering the industry, is placed at 18.4 cents a bushel, up 24 percent from 1971/72.

Total 1974/75 marketing costs—for receiving, shipping, and storing a bushel of grain for 1 year—are projected as follows by type of elevator:

Country elevators: 23.6 cents (receiving by truck and shipping by rail): inland terminals: 22.2 cents (receiving and shipping by rail): and port terminals: 28.3 cents (receiving by rail and shipping by water).

The 1974/75 storage cost at all facilities for varying volumes ranges between 17.2 and 20.0 cents.

[Based on an article by Allen Schienbein, Commodity Economics Division, entitled "Cost of Storing and Handling Grain in Commercial Elevators, Projections for 1974/75," *Feed Situation*, Fds-252, February 1974.]

BEEF PLUS SOY

PROGRESS OF A NEW PRODUCT

High red meat prices paved the way for widespread distribution of a new soy-beef blend that's freshly ground, packaged, and retailed like regular hamburger.

A new soy-ground beef blend hit the market last spring and managed to gain more than a quarter of all ground beef sales by the grocery chains reporting sales.

Before soy-beef blends made their debut, meat patties containing soy products and ground beef were already available to institutional markets and in retail stores. But distribution was limited, the products included low levels of soy, and were generally marketed as a frozen food.

In a recent "progress report" on how the blend fared over a 30-week study period, ERS notes that the mixture was a truly new product when introduced in grocery stores since it contained more soy than its predecessors and was the first soy-beef blend to be sold freshly ground.

It appears that high red meat prices were a major factor in the decision by soy-product manufacturers and retailers to launch the blends for retail distribution.

Three grocery chains that first began selling the blend provided ERS with sales data, as well as sales figures for other ground beef products. The firms operate in all major population centers except the Northeast and Northwest.

After initial introduction of the soy-beef blend proved successful, these chains made the product more widely available. Most blends now on the market contain 25 percent rehydrated soy by weight. And they usually contain less fat than the 30-percent maximum allowed in regular hamburger.

Today soy-beef blends are displayed in many supermarkets and local groceries across the country, although availability isn't uniform. Some major chains, for example, don't carry the product in all their divisions.

Grocery firms handle the blends just like regular ground beef. The usual practice is to coarse grind the beef at a central location and mix in the rehydrated soy product. The blend is then shipped to individual stores where it's fine ground and put into consumer packages.

The mixture is displayed in retail meat cases along with regular ground beef. But it's not called hamburger. Instead, the product bears a special name with all ingredients listed on the label. In most instances advertising and point of sales materials state the exact percent of soy within.

Prices and volumes of soy-beef blends and other ground beef products moving through the three supermarket chains were reported at 2-week intervals beginning in late April. All stores, however, had carried the product 1 to 5 weeks before the study began.

Strong start. In the early period, the blend product captured about 26 percent of the ground beef market. This share swelled to around 30 percent during August and early September, then retreated and held at between 20 and 25 percent through the final period in mid-November.

Meantime, the volume of ground beef moving through stores trailed off from early June to late August—the fourth through the ninth reporting periods. This could explain the surge in soy-beef blends appearing in meat cases during the fifth to eighth periods. Retailers may have tried to stretch sparse red meat supplies by channeling more ground beef into blend products.

Total beef sales began edging up in late August, and topped early June levels in September. In turn, blend sales slipped during September but appeared to stabilize during October and November. Additional data being gathered by ERS will probably reveal whether the blend will continue to take from 20 to 25 percent of ground beef sales.

Based on sales figures for all ground beef products, the soy-beef blend appeared to provide a more direct substitute for regular hamburger than for lean ground beef. This could mean that consumers find the blend more acceptable in various prepared dishes than cooked as a pattie.

Price is paramount. Price, of course, stands out as the prime factor in the blend's success. Retail prices during the 30-week study period ranged from 69 cents to well over a dollar a pound—generally about 15-20 cents below regular hamburger.

Researchers emphasize that the relationship of price to quantities sold still needs further analysis. But so far, data show that even at the high meat prices of April-September, soy-beef sales weakened when the price gap between the blend and regular hamburger narrowed to less than 10 cents a pound.

Still to come. Further analysis may eventually reveal the price differential required for the soy-beef blend to maintain a given share of the ground beef market.

Too, analysis of completed data will probably yield information that will help researchers determine per capita consumption of certain soy products used as meat extenders. And it will probably help them come fairly close in predicting how use of the blends will vary with relative changes in their price and the price of ground beef.

[Based on "Sales of Soy-Ground Beef Blends in Selected Stores," by William W. Gallimore, National Economic Analysis Division, in *National Food Situation*, NFS-147, February 1974.]

ERS Shows Where Poultry Dollar Goes

Anybody who's ever bought a dozen eggs or a chicken has probably wondered where the money went.

ERS has been keeping track of just that for close to 20 years.

Last year eggs and poultry products met with exceptionally strong demand. This was triggered by short supplies of—and higher prices for—beef and pork, as well as mounting foreign demand and rising incomes.

The heavy demand brought higher prices, both at the farm and at retail, and wider marketing margins.

Retail prices in 12 major cities for U.S. grade A large eggs averaged about 78 cents a dozen in 1973—up 25 cents from a year earlier. For each dollar consumers spent for eggs, the farmer got around 68 cents—11 cents more than in 1972.

The farm-to-retail margin widened by about 4 percent, while the difference between the price to retailers and the price to consumers swelled by 18 percent.

For frying chickens, the retail price went up about 18 cents a pound to over 60 cents. The farmer's share was 34 cents, or about 56 cents of each consumer dollar.

The farm-to-retail margin for frying chickens narrowed slightly from 1972, but the spread between the retailer's cost and his selling price increased by about 4 cents a pound.

Marketing margins could widen further this year as labor, transportation, and costs of packaging materials continue to mount.

ERS's experience with monitoring prices since 1955 points up some of the structural changes in the poultry and egg industries.

For all poultry products, prices to wholesale city receivers are becoming increasingly difficult to turn up—indicating the declining role of these middlemen and the trend toward direct marketing from processors and packers to retail outlets.

[Based on article "Where Do Our Egg and Poultry Dollars Go?" by Kenneth E. Blase, Commodity Economics Division, in the *Poultry and Egg Situation*, PES-280, February 1974.]

A Reader's Guide To Differential Assessment

If you think that . . .

✔farmers in your State bear more than their fair share of the tax burden, or

✔certain farmland and other open spaces ought to be spared the bulldozer

. . . you probably think your State needs a better system for assessing farmland.

You may have already looked into special assessment laws. But you're not sure what kind of differential assessment system would work best for your State . . . if indeed it would work at all.

A soon-to-be-released bulletin explains the types of differential assessment laws now used in more than half our States, experience with the laws, and things to consider when deciding whether a differential assessment law would prove useful in a particular State.

The bulletin also provides a breakdown of the special tax laws in individual States—to serve as a frame of reference for people who are drafting or revising differential assessment laws of their own.

The laws are based on the principle that certain land will be valued for property tax purposes only according to its value in its current use rather than according to market value for another use, such as a housing subdivision. Though they generally apply to farmland, the laws have been adopted by many States to cover forest land, open land, recreation land, etc.

The laws vary in detail from State to State, but fall into three broad categories.

The first, *preferential assessment*, permits land to be valued at its current use and imposes no penalty if the land is transferred out of that use. Nine States use preferential assessment.

Eighteen States have *deferred tax laws*, which levy a penalty if land use changes.

With *restrictive agreements*, landowners and local governments agree to restrict use of land for a set number of years—usually 10— in return for tax concessions. Broken agreements usually result in severe penalties.

The laws appear to work better in some States than others. For example, State definitions of agriculture vary widely. In some States where land in agricultural use qualifies for special assessment, the meaning of "agricultural use" is left largely to the judgment of the local assessor.

And while some States give local officials a lot of help in measuring agricultural value, others leave the decision entirely to the local assessor—frequently a cause for controversy.

As for the equity argument that farmers pay too much in real estate taxes: the ERS bulletin says that it's true that farm real estate taxes take a bigger portion of personal income than 10 years ago, whereas the share for nonfarmers has remained about the same.

On the other hand, total property taxes in the U.S. have grown slightly faster than farm property taxes over the past decade. In short, economists can't say whether farm real estate taxes are out of line and conclude there is no clear evidence that differential assessment would necessarily result in a more equitable tax system.

Citizens who are considering using differential assessment as a way to influence land use should ask themselves three questions.

First, "What are we trying to do?" Identifying specific goals makes it easier to decide what types of differential assessment laws to use and how to apply them.

Second, "Can differential assessment do the job?" So far the evidence is mixed on whether differential assessment is an effective way to preserve land in farms or other open spaces. Nearly all studies agree that differential assessment won't work all by itself. It must be combined with a variety of other tools for influencing land use.

Finally, "Are there any serious side effects?" There may be several, but the biggest is that special assessment is likely to raise some people's tax bills since local governments may be forced to raise tax rates to make up for losses in revenue.

[Based on manuscript, State Programs for the Differential Assessment of Farm and Open Space Land, by Thomas F. Hady and Ann Gordon Sibold, Economic Development Division.]

Who (or What) Picked The Raisin? Consumers Can't Tell

The path appears clear for mechanical harvesting of raisins—at least from the consumer's viewpoint.

A recent ERS survey indicates consumers generally cannot tell the difference between raisins that are hand harvested and those harvested by machine. In those cases where they could tell a difference, consumers tended to prefer the raisins that were mechanically harvested.

Earlier panel evaluations indicate there is no difference in flavor between the raisins harvested the two ways but that there is a detectable difference in appearance—the mechanically harvested raisins are shinier.

The consumer survey is just one of the studies underway to provide information to growers making the decision of whether or not to shift from handharvesting to mechanical harvesting of raisin grapes.

Since the first raisin crop was harvested in California 10 years ago, the procedure hasn't essentially changed. Today, though, California's Central Valley produces about 40 percent of the world raisin crop. Grapes are cut in whole clusters by hand, put between vine rows to dry in the sun, and then taken to a processing plant. The entire operation takes about 3 weeks and requires considerable hand labor.

However, producers today are faced with a decrease in available workers and an increase in costs, and are now searching for new methods to lower production costs.

The particular harvesting method used in this study involves cutting fruit-bearing canes several days prior to harvest to initiate drying and facilitate harvesting. The mechanical harvester dislodges the grapes as single berries and deposits them onto a continuous paper tray automatically laid behind the harvester.

In about 10 to 12 days, when the grapes are dried, they are mechanically picked up and conveyed to bins for the processing plant. The procedure eliminates several days of drying time, thus reducing the risk of damage due to insects, rodents, birds, and rain.

So far, preliminary cost estimates indicate a reduction of $15 an acre by mechanical harvesting compared with hand harvesting.

[Based on "Consumer Evaluation of Mechanically Harvested Sun Dried Raisins," an article in *Marketing and Transportation Situation*, MTS-192, February 1974, by Elizabeth D. White, National Economic Analysis Division, and Vincent E. Petrucci, California State University.]

Grain Stocks: How Big and at What Cost?

Most of the world's shortfall in grain production over the past 20 years could have been met by stockpiling the equivalent of one-tenth of U.S. grain production, ERS has reported.

Using simulation models, economists calculated that a stock level equal to 10 percent of U.S. trendline production would have gradually risen from 12.4 million tons in 1950 to 20 million in 1969. Such a stock level would have filled the world net shortfall in grain production (and/or a shortfall in U.S production below the trend) in all but 3 years.

Assuming an annual storage charge of $5 per ton, total storage costs over the 20-year period would have totaled $820 million, or $5.05 per ton, 15.2 cents a bushel, of shortfall met by the system.

The ERS study also figured costs for maintaining stocks at 8 and 12 percent of the U.S. trendline production. An 8-percent level, for example, would have met all but 37 million tons of a 179-million-ton shortfall in world and/or U.S. production. The storage cost would have been $600 million, or $4.21 per ton, 6 cents a bushel, of shortfall met by the system.

As for the impact of varying stock levels on the market price of grains, the study said there would be little effect on the market price of wheat when the ratio of U.S. carryover to total wheat use is above 40 percent. Ratios between 25 and 35 percent would have a moderate effect, and ratios below 20 percent, a marked effect. Similarly for corn, there would be little effect on the price with a ratio above 40 percent.

The ERS study was prompted by widespread interest and discussion arising from the drawing down of world grain stocks in recent years.

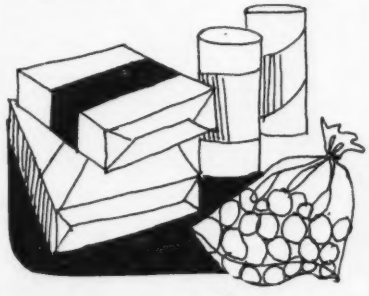
[Based on *Grain Stocks Issues and Alternatives—A Progress Report*, by W. R. Bailey, Commodity Economics Division; F. A. Kutish, Office of the Administrator; and A. S. Rojko, Foreign Demand and Competition Division.]

Packaging Farm Foods Tops $10 Billion

The value of packaging materials used for farm-raised foods jumped over 8 percent last year, from $9.7 billion to $10.4 billion.

Most of this was due to higher prices, with only about 1½ percent of the rise due to increased quantity of packaging materials used.

Packaging materials finished out the year accounting for nearly 8 percent of the $134 billion consumers spent on farm-originated foods.



All classes of packaging materials rose in value in 1973 with the exception of textiles, which went down nearly 2 percent.

Metal cans led the increase in value, up 12 percent, although prices were up only 2.4 percent. Glass containers increased more than 9 percent, paper products 8 percent, plastics 6 percent, and wood containers, 1 percent.

Tight supplies put two packaging materials particularly in the news in 1973: solid fiber and corrugated shipping boxes . . . and grocery bags.

Solid fiber and corrugated shipping boxes account for 23 percent of paper products in food packaging. Wholesale prices increased about 11½ percent last year.

Paper boxes are expected to continue in tight supply this year due to the fact mills are already much closer to full capacity than usual. Prices of paper boxes may increase as much as 10 percent or more this year.

As for large grocery bags, supplies will continue to be tight. A national grocery chain reported paying 2 cents each, up about 14 percent over 1972.

To show just how important the grocery bag is, a national grocery chain points out that its average sale is about $7, and a large grocery bag holds about a $7 to $8 sale. Using an average of the first three quarters of 1973, retail food chain profit as a percent of sales was 0.5 percent—or 3½ cents on an average sale. This indicates that the cost of bags may equal over one half of the grocery store profit.

[Based on special material by Cleveland P. Eley, National Economic Analysis Division.]

Behind the bigger tab for groceries

In 1973, Americans spent a record-breaking $139 billion for food, up from $116 billion the year before. Here, through some of ERS's situation reports, is a look at some causes for this jump.

Last year will go down as one of the most turbulent in the history of the food industry.

Average retail food prices were up 14½ percent . . . per capita food consumption was down 2 percent, largely because consumers bought less meat . . . and the farmer's share of the consumer's food dollar went up 6 cents to 46 cents—the highest it's been in 20 years.

Consumers spent a record $139 billion on food, 11 percent more than the year before and the largest annual increase since 1951.

Bought less. All of the $14 billion increase came from higher prices. If you discount them, real food purchases showed the sharpest decline in over 40 years.

All of these things made 1973 unusual.

It falls within ERS's bailiwick to analyze prices for farm-raised foods. One of the key indicators it uses is the cost of a market basket of farm food—in essence the cost to a household for foods purchased in retail food stores except imported foods and seafoods.

Last year, this market basket of foods raised on U.S. farms cost $1,537 in retail stores—$227 more than in 1972.

Largest increase in over 25 years. This 17-percent increase was more than triple the 5-percent rise from 1971 to 1972 and was the largest annual increase since 1946, when prices surged 21 percent.

What happened?

Supplies were tight. Livestock production was down in the U.S. and the world in general had reduced food and feed supplies.

At the same time, economic growth in both the U.S. and the world accelerated the demand for food.

International currency realignments also stepped up world demand for U.S. farm products which became cheaper to foreign nations in terms of their local currencies.

Price ceilings also a factor. A combination of rapidly increasing production costs and price ceilings resulted in supply disruptions and curtailed total output of meat and poultry products. In August, when ceilings were lifted on all foods except beef, grocery store prices increased over 7 percent from the July level.

For the year, grocery store prices (including prices for fishery products and imported foods) were up more than 16 percent, while prices for food eaten out increased about 8 percent. Most of the increase at retail stores reflected higher farm prices.

By commodity, livestock products played a large role in last year's food price inflation. They were up 22 percent compared with crop-related products, which were up only about half that rate.

Poultry shows sharpest rise. In the meat, fish, and poultry category, poultry showed the biggest price rise for 1973—40 percent. Part of this was due to farmers cutting back on production when squeezed between sharply increasing feed costs and ceiling prices at the wholesale and retail levels.

Beef and veal retail prices were up a record 20 percent, reflecting a cutback in slaughter.

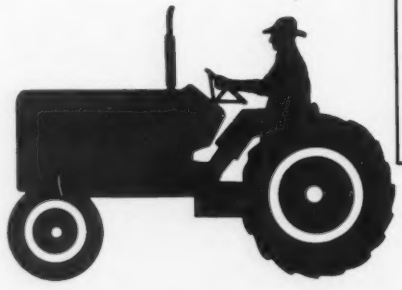
As consumers shifted to less expensive cuts, these cuts rose the most. Liver, for example, was up 22 percent and chuck roast and hamburger, 26 percent. Porterhouse steak rose the least.

Pork prices were up 33 percent, with hog slaughter down 9 percent.

Getting a line on fish prices. The smallest price gain in the meat, fish, and poultry category was for fish, which averaged 15 percent higher. Consumers seemed to cut down on buying fish when the price went up, a factor that kept prices from rising further than they did.

Dairy prices advanced 9 percent. Most of this increase came in the last half of the year as dairy supplies tightened.

Of other commodities, eggs were up almost 50 percent after 2 years of depressed prices, cereal and bakery products averaged a record 11½ percent higher due primarily to higher wheat prices, fats and oils



were up 11 percent, and fruits and vegetables averaged a 14-percent rise.

Potato prices rose almost 50 percent due to smaller production and strong demand.

Farm value vaults. The farm value of all foods in the market basket jumped a third last year, accounting for the farmer's bigger share of the food dollar.

Most of the increase came from higher prices for animal products—they added up to three-quarters of the increase in the total farm value of the market basket.

Returns for meat animals were up a third, poultry and eggs were up almost four-fifths, and milk 14 percent.

Returns for crop products were also up substantially; food grains and oilseeds were up by about half; and fresh fruits and vegetables almost a third.

The farmer's increased returns accounted for about three-fourths of the $227 rise in the retail cost of the market basket of farm foods last year.

A big year for farmers. Since 1967, returns to farmers for market basket foods have gone up 67 percent. More than half of this occurred last year.

Of the $134 billion that consumers spent on farm-raised foods both in food stores and eating places last year, the farmer grossed about $51 billion.

The rest—about $83 billion—went into marketing.

About half of the total marketing bill for farm foods goes to cover labor costs. Although limited by Phases III and IV, hourly earnings of employees of food marketing firms averaged an estimated $3.65 last year, up 6 percent from 1972.

Improvements in output per man-hour may have offset part of the rise in wages last year.

Prices of containers, packaging materials, and other intermediate goods and services purchased by food marketing firms increased more than usual in 1973. The price of energy, (fuel, power, and light) jumped about 9 percent from the third to the fourth quarter.

What food costs will be for 1974 is still uncertain.

Current estimates are that retail food prices will average 12 percent higher in 1974 as compared with 1973's 14½ percent increase, and that this growth will come mostly from higher marketing costs, rather than from higher farm prices as was true last year.

Major uncertainties revolve around these unknowns—

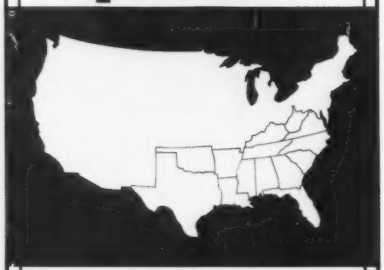
U.S. farm output. Farmers must still make many decisions on what to shoot for in terms of production. Fuel and fertilizer situations will play important roles also in output, and as always, the weather holds a critical card.

Export demand. We expect foreign countries will buy less from us than last year's record, but the extent of this cutback and the timing are far from clear. Indications that a decrease is coming are (1) world production improved last year, (2) our currency has begun to appreciate in relation to other world currencies, and (3) energy problems threaten economic growth rates for major oil-importing countries.

Domestic economy. If our wage rates, employment levels. and Government spending for welfare programs show further sharp increases, consumers could use this additional spending power to bid up prices for food. On the other hand, if our rate of unemployment increases, wage rates remain fairly stable, and inflation increases for consumer goods and services other than food, consumers would be less willing or able to maintain present levels of food purchases.

[Based on *National Food Situation*, NFS-147, February 1974, and *Marketing and Transportation Situation*, MTS-192, February 1974.]

agriculture's capacity to produce southern states



Continuing the regional look at ERS projections of agriculture's capacity to produce to 1985, this story deals with 14 southern States and their agriculture.

The South is not only well fixed for agricultural land now but is projected to need even fewer harvested acres by 1985.

That's the conclusion from a regional study of 14 southern States* based on ERS's recent report on American agriculture's capacity to produce to 1985.

Projected harvested cropland requirements for 16 major crops in these southern States is 66.6 million acres in 1985—about 1 million fewer than these crops averaged in 1970-72.

The South's need for fewer harvested acres in the next 10 years stems from higher yields and regional shifts in commodity production.

Commodities on the move. Regional shifts away from the South, for instance, are projected to result in the South producing a smaller portion of the Nation's cotton, hogs, sheep, milk, corn, and hay by 1985.

On a national level, of 22 commodities studied, only oats, sheep, tobacco, and sweet potatoes are projected to decline in production by 1985. The South produces more than 90 percent of both our tobacco and sweet potatoes.

However, the South's share of national production is expected to shoot up for a number of important commodities, including soybeans, wheat, grain sorghum, barley, sugarcane, and chickens.

Looking at the big ones. Of 16 major crops, the South is projected to require less acreage for 9 of them in meeting its share of production by 1985: cotton, tobacco, rice, corn, silage, oats, hay, Irish potatoes, and sweet potatoes. More acreage will be required for the other 7 crops: wheat, rye, grain sorghum, barley, soybeans, peanuts, and sugarcane.

The South varied from the U.S. trend for these crops in only three instances. Total U.S. acreage for wheat

* Virginia, West Virginia, North Carolina, Kentucky, Tennessee, South Carolina, Georgia, Florida, Alabama, Mississippi, Arkansas, Louisiana, Oklahoma, and Texas.

THE U.S. AND THE SOUTH'S AGRICULTURAL PRODUCTION, 1970-72 AND 1985

	1970-72 Average			1985 Projections				
	U.S.	South	South's Share of U.S. Production	U.S.	South	South's Share of U.S. Production	U.S. 1985 As Percent Of U.S. 1970-72	South 1985 As Percent Of South 1970-72
	Millions		*Percent*	*Millions*		*Percent*		
Wheat	1,505 bu.	188.4 bu.	12.5	1,528 bu.	264.9 bu.	17.3	101.5	140.6
Rye	39 bu.	4.7 bu.	12.2	43 bu.	6.9 bu.	15.9	112.2	146.8
Rice	8,491 lbs.	6,647 lbs.	78.3	10,487 lbs.	7,992 lbs.	76.2	123.5	120.2
Corn	5,089 bu.	420.8 bu.	8.3	6,613 bu.	393.5 bu.	6.0	129.9	93.5
Grain sorghum	795 bu.	373.0 bu.	46.9	1,148 bu.	570.4 bu.	49.7	144.3	152.9
Oats	831 bu.	49.7 bu.	6.0	752 bu.	43.9 bu.	5.8	90.5	88.3
Barley	434 bu.	33.0 bu.	7.6	557 bu.	50.6 bu.	9.1	128.2	153.3
Hay	128 tons	20.6 tons	16.1	138 tons	20.8 tons	15.1	107.3	101.0
Soybeans	1,193 bu.	326.8 bu.	27.4	1,800 bu.	541.4 bu.	30.1	150.9	165.6
Peanuts	3,091 lbs.	3,073 lbs.	99.4	4,408 lbs.	4,369 lbs.	99.1	142.6	142.2
Cotton	5,478 lbs.	4,300 lbs.	78.5	5,702 lbs.	4,232 lbs.	74.2	104.1	98.4
Sugarcane	26 tons	14.3 tons	55.2	29 tons	17.1 tons	59.0	112.0	119.6
Tobacco	1,788 lbs.	1,662 lbs.	93.0	1,665 lbs.	1,558 lbs.	93.6	93.1	93.7
Irish potatoes	313 cwt.	18.5 cwt.	5.9	357 cwt.	21.2 cwt.	5.9	113.8	114.6
Sweet potatoes	13 cwt.	11.4 cwt.	91.2	9 cwt.	8.0 cwt.	87.5	72.8	70.2
Cattle, calves	40,020 lbs.	12,305 lbs.	30.7	55,051 lbs.	17,129 lbs.	31.1	137.6	139.2
Hogs	22,174 lbs.	3,826 lbs.	17.3	27,484 lbs.	3,815 lbs.	13.9	123.9	99.7
Sheep, lambs	1,051 lbs.	311 lbs.	29.6	407 lbs.	73 lbs.	17.9	38.7	23.5
Chickens, except broilers	1,173 lbs.	553 lbs.	47.1	1,452 lbs.	806 lbs.	55.5	123.8	145.8
Turkeys	2,297 lbs.	738 lbs.	32.1	3,381 lbs.	1,027 lbs.	30.4	147.2	139.2
Eggs	69,400	28,533	41.1	75,484	35,074	46.5	108.8	122.9
Milk	118,640 lbs.	20,020 lbs.	16.9	118,850 lbs.	17,536 lbs.	14.8	100.2	87.6

and sugarcane is projected to go down, while the South's acreage is expected to go up. U.S. acreage for corn is projected to expand, whereas the South's is projected to go down.

While the South is projected to need fewer acres of cropland by 1985 to meet its share of demand, it will have more cropland readily available.

ERS projects some 87½ million acres will be potentially available for crops in the South in 1985—about 10 percent more than were used in 1973. This potential cropland includes cropland not under cultivation but which could be readily converted, such as pasture.

In projecting 87½ million acres, ERS assumed that urbanization and abandonment will be counterbalanced by reclamation and a return to production of enough land to add about 700,000 acres a year to the cropland base.

Thus, the land potential is available for more production in the South then is projected. But the economic potential will be limited unless favorable prices, costs, and increasing yields continue.

Over the past 25 years, about 1.8 million acres in the South have been taken out of crop production each year. On the average, 200,000 acres each year have gone irreversibly to urbanization and highways. The rest —1.6 million—has gone to forest, permanent pasture, or rangeland—land that can be converted back to cropland if need be. There are about 120 million acres that are more marginal—rolling lands, for instance, or land that needs clearing. These acres are suitable to crops but are not now under cultivation according to the latest USDA Conservation Needs Inventory.

A second projection. Because the study used conservative figures for export demand in 1985, ERS economists also worked out an alternative projection based on higher demand for feed grains and soybeans.

This alternative level of exports assumes high export demand through continued movement toward freer trade and a U.S. comparative advantage in international trade of food and fiber commodities.

Specifically, the alternative projection puts U.S. feed grain exports at 56.3 million metric tons in 1985 (as opposed to 34.5 million in the more conservative estimate) and soybeans at 30.6 million metric tons (as opposed to 25.8 million in the more conservative projection).

Still within capacity. To produce enough to meet this extra demand would require 10 million more harvested acres for feed grains and 4½ million more acres for soybeans.

The South, to share in this increase, would have to farm 3 million more acres—half of it for feed grains and half for soybeans.

This additional acreage is well within the productive capacity of the South and the U.S. and would require only a moderate increase in feed grain and soybean prices above historical levels to provide the incentive for the required production.

[Based on "Agricultural Production, Yields, and Acreage: Projections to 1985 for the South," a report compiled by Virden L. Harrison, National Economic Analysis Division.]

In a Pinch

Growers of California processing tomatoes are expecting they won't get pinched again this year.

Pinched, that is, between soaring production costs and depressed contract prices, which have been squeezing growers out of business at a fairly rapid pace.

During 1956-72, total production costs jumped more than 50 percent. Rapid adoption of mechanical harvesting in the mid-1960's kept costs from sailing even higher.

Contract prices were particularly favorable until the massive 1968 crop, which marked the start of a prolonged cost-price squeeze.

Two years ago, contracts of $50 a ton were only pipe dreams. This year, a $55 price to growers has attracted needed acreage. Growers will be facing higher costs of fuel, fertilizer and supplies.

[Taken from speech by Edward V. Jesse, Commodity Economics Division.]

Cattle Count Makes Biggest Leap in 2 Decades

The U.S. cattle herd stood at a record 127.5 million at the start of 1974, up from 121.5 million a year earlier and from 109 million in 1965. The buildup in 1973—the most in over 20 years—would have been greater had it not been for heavy death losses caused by severe winter weather.

Texas again led all States in cattle and calf numbers on January 1, 1974, reporting 16.3 million. This was more than double the herd size in the runner-up State of Iowa, which had 7.7 million. Others in the top five were Nebraska (7.4 million), Kansas (7.0 million) and Missouri (6.2 million).

All of the expansion in the cattle inventory over the last 5 years has been in the beef herd. At the beginning of 1974, beef cow numbers had risen to 42.9 million head, 5 percent more than a year earlier and one of the larger increases of the past decade.

Replacement beef heifers rose 10 percent to 8.2 million. Cattlemen will be able to replace any cut caused by larger cow slaughter.

In the Corn Belt, gains in beef cow numbers exceeded the national average. The Plains States about matched the national increase and expansion in the West and Southeast trailed the U.S. average. Minnesota registered the biggest percentage increase—18 percent—but Missouri had the largest absolute gain, 334,000 head.

In contrast to beef cows, milk cows continued their long-time downtrend and fell to 11.3 million on January 1, 1974, a drop of 3 percent from a year ago. High feed costs were a major factor in last year's reduction. Inventory declines were widespread, with only four States reporting increases during 1973—Arizona, California, Colorado, and Florida.

[Based on material by John T. Larsen, *Livestock and Meat Situation*, LMS-195, March 1974.]

The Appeal of Farmwork: Farmers vs. Laborers

How many men are still in farming 5 years later?

In a study of 17 western States, ERS found that about 7 out of 10 farmers and farm managers stayed in that occupation for the comparison years 1965 and 1970, based on Census of Population figures.

However, the proportion was much lower for farm laborers and farm foremen. Fewer than 1 out of 2 were still in such jobs in 1970.

Altogether, the study covered more than 700,000 men who were in farming in 1965. Nearly two-thirds were farmers or farm managers and the remainder, farm laborers or farm foremen.

By 1970, 133,000 farmers and farm managers had shifted out of that occupation. About half were no longer in the labor force—primarily due to retirement. The remainder were scattered through a number of occupations, most notably as farm laborers and foreman, craftsmen, machine operators, and into professional and managerial type jobs. Those who became farm laborers and foremen most commonly retired from their own farm but continued in farm work.

Of the 137,000 farm laborers and foremen who left their occupations, about 10 percent had moved up to become farmers or farm managers. Other occupations which claimed 10 percent or more of the men who were farm laborers or foremen in 1965 included machine operators, craftsmen, and nonfarm laborers. Farm laborers were more apt to go into nonfarm employment than were farmers, the study found.

Unemployment was fairly low in 1970 among those who had been farmers or farm managers in 1965—3 percent. But it was better than 6 percent in 1970 for those who had been farm laborers and foremen in 1965.

While a total of 270,000 men left their particular farm occupation in the 5-year period, a total of 198,000 had entered farming—108,000 to become farmers and farm managers and 90,000 to become farm laborers and foremen. Of the 108,000, about 1 in 10 had moved up from being farm laborers or foremen in 1965.

Indications were that more young men were entering farming in the rural-oriented States in the study than were entering in the more urban States. "New" farmers in the urban-oriented States were more apt to be older men beginning farming as a step toward retirement.

[Based on manuscript by Donald K. Larson, National Economic Analysis Division, entitled Income and Occupational Mobility of Farmers and Farm Laborers, 1965-1970, Western States.]

EVERYBODY'S FARM

You might also call this story "everybody's favorite." It first appeared in The Farm Index 3 years ago and, due to its popularity, is updated here.

If all the land used for farming in the United States were divided equally among U.S. families, what would be your family's share?

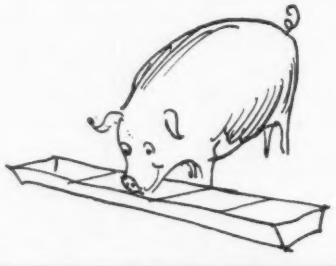
The answer is slightly less than 24 acres. To the city dweller or suburbanite this would seem like room to roam. But the average farmer, accustomed to 385 acres, might feel a bit cramped.

About 20 of your 24 acres would be actually in your farm. Nearly 7½ acres of your farm would be cropland; 9½ would be grassland or range. You also would have about 3 acres of woodland which you use for grazing, and less than an acre in farmstead, roads, and nonfarm uses.

In addition to land in your farm, you would run livestock on about 4 acres of land rented or leased from the Government. About half would be grassland, pasture and range, and the rest would be woodlands—mostly lands administered by the Forest Service.

Although your farm contains nearly 7½ acres of cropland, you planted less than 5 acres to crops in 1973. The rest of it was in fallow used for pasture, held out of production under Government programs, or idle for one reason or another. You had over an acre in corn and in hay, and soybean and wheat fields of nine-tenths of an acre. Most other crops were on garden-sized plots.

Your herds and flocks present some puzzling biological problems. You had only one-fifth of a dairy cow but she managed to produce 2,150 pounds or 250 gallons of milk in the year. The beef cattle herd of 2.0 head dropped nine-tenths of a calf, while your lone hog had a litter of 1.6 pigs. Only one-third of a sheep roamed your pasture.



You had 5.6 hens during 1973. They laid 103 dozen eggs. You also produced 56 broilers, but only 2½ turkeys.

Your family farm was valued at $4,814 on the 1973 real estate market. As the year began, you had $638 worth of livestock and poultry on hand and $262 worth of crops. Investment in machinery and motor vehicles amounted to $726.

If you are a city man, this farm may give you more elbow room than you are accustomed to, and perhaps something of the spirit of agrarian living. But, as every farmer knows, it won't make you rich.

Your 24 acres grossed $1,684 in 1973. Production expenses took $1,198 of that, leaving you a net income of only $486.

[Based on special material by Earl E. Miller, National Economic Analysis Division.]

Food Service Industry Serves Up Three New Products a Day

For less work and with less waste, hotels, restaurants, and institutions are offering an array of convenience foods that were unheard of 20 years ago.

After surveying 152 food processors with sales of over $10 billion in 1973, ERS reported these firms introduced more than 6,300 new convenience foods during the past 5 years—an average of more than 3 a day. In the same period they discontinued over 1,200 items, or about 1 item for every 5 that were introduced to the market.

Most of the new items were entrees (2,573), about two-fifths of the total, and nearly all were frozen products requiring cooking or heating before serving. About 14 percent of the entrees introduced in the past 5 years were discontinued, slightly less than the average for all items.

Side dishes were the second largest group of new items (458), with three-fourths in the heat-and-serve category. About half were frozen and most of the remainder were canned or packaged. Of the side dishes introduced, only 8½ percent were discontinued.

Other survey findings included—

Fourteen of the 152 firms surveyed accounted for nine-tenths of the total sales of $10 billion.

Asked about the use of raw agricultural commodities in convenience foods, respondents most often cited vegetables, meats, poultry, and dairy products as being the principal ingredients.

Heat-and-serve items and those sold in portions were seen as the largest growth areas for convenience foods. Among food forms (canned, dried, frozen, etc.), respondents expected frozen products to ring up the greatest gains in the next 5 years.

[Based on an article by H. R. Linstrom and N. Seigle, National Economic Analysis Division, entitled "The Institutional Convenience Food Market," *Marketing and Transportation Situation*, MTS-192, February 1974.]

Men and Milestones

Lake Junaluska, North Carolina, August 30, 1957—At impressive ceremonies, **Frederick V. Waugh** *of USDA becomes one of the first Fellows of the American Agricultural Economics Association.*

The citation stated that he was particularly noted for his keen ability to apply economic theory to problem solving, and for his rare capacity to develop theoretical concepts and analytical techniques. In 1961, Waugh received USDA's Distinguished Service Award.

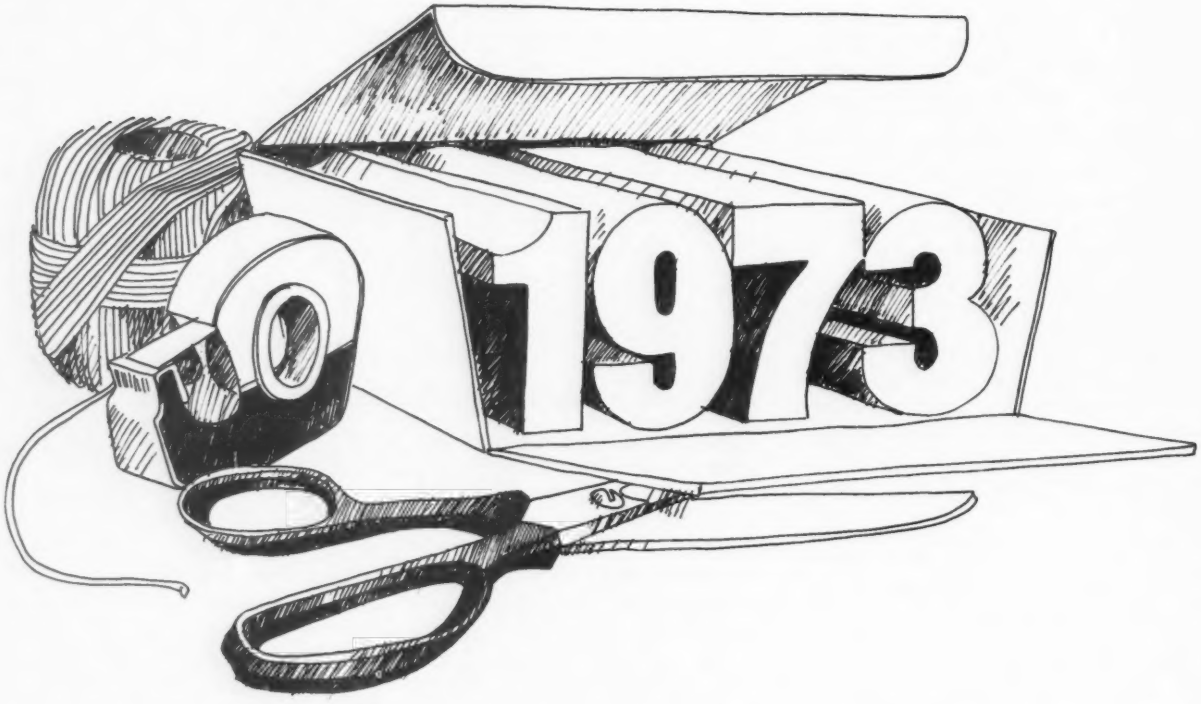
Today, 13 million Americans with low incomes benefit from Waugh's work in economics. In the mid-1930's he had developed the theory that food demand could be increased through discriminatory or graduated pricing. In 1938 he proposed a graduated price program to raise the consumption of surplus foods. The result was the Food Stamp Program, which went into experimental use in 1939. Dropped during World War II, it began again in 1961 and has become the major program for assuring food to even the poorest Americans.

Three different times Waugh won the award for the best article in the *American Journal of Agricultural Economics*. The subjects illustrate his competence in broad areas: minimum cost dairy feed, beef/pork price ratios, and cobweb models. In 1962 he did a major study on managing farm surpluses.

Born in Burlington, Vermont, in 1898, Waugh received degrees from Massachusetts College, Rutgers University, and Columbia University. He joined the Bureau of Agricultural Economics in 1928, and later served with the Division of Marketing and Transportation Research, Agricultural Marketing Administration, Food Distribution Administration, Office of War Mobilization and Reconversion, and Council of Economic Advisers. He retired from ERS in 1965. He died earlier this year.

[Special material by Wayne D. Rasmussen, Agricultural History Group.]

Farm Exports: Wrapping Up A Record Year



Last year, we recorded our biggest gain in history in agricultural exports. Here, a roundup from ERS tells what we exported where—to nearly double exports.

No matter how many adjectives you use—phenomenal, recordbreaking, astronomical—it's difficult to picture how we nearly doubled our farm exports in the 1973 calendar year.

Cotton exports were the highest they've been since 1960 . . . stepped-up grain exports alone accounted for three-fifths of the multi-billion dollar gain . . . trade with People's Republic of China added a new dimension.

In all, U.S. agricultural exports shot up to an unprecedented $17.7 billion—88 percent above the 1972 record of $9.4 billion. It was the biggest dollar and the biggest percentage increase in history.

More records. In a breakdown by commodity, ERS notes that export records were set for wheat, corn, soybeans, soybean meal, cattle hides, lemons, grapefruits, fresh vegetables, and live animals.

Overall, the volume of our farm exports rose about 30 percent and accounted for about two-fifths of the $8.3 billion gain in value.

Higher prices accounted for the rest of the gain—especially for soybeans, soybean meal, wheat, feed grains, most fruits, vegetables, hides and skins, meats, tobacco, and nuts.

Why? In general, the record trade year can be attributed to several key factors—

√ Short supplies in major parts of the world, in particular the Soviet Union, Southeast Asia, Australia, and parts of Latin America and Africa, due to unfavorable weather conditions

√ a world protein supply shortage stemming from the sharp drop in Peruvian fishmeal exports and reduced peanut crops in India and Senegal

√ stepped-up demand in major foreign markets due to higher incomes

√ opening of East-West trade

√ realignments of world currency that gave the U.S. a competitive advantage.

Of all commodities exported in 1973, grains were the most important. They accounted for $8.5 billion, nearly half the total and nearly 2½ times more than in 1972.

Paid more. Higher prices accounted for about three-fifths of the increase. Wheat exports, for example, averaged $2.93 a bushel in 1973 compared with $1.74 in 1972; feed grain exports averaged $85 a ton compared with $55 in 1972; and rice averaged $341 a ton compared with $198.

We exported the equivalent of more than three-fourths of our wheat crop: 1.4 billion bushels in wheat and wheat products compared with 840 million in 1972.

The Soviet Union accounted for the bulk of the increase—320 million bushels, and the People's Republic of China bought nearly 5 times more than they had in 1972—97 million bushels compared with 21.

Sharp increases also came from Japan, Asia, the Middle East, North Africa, Latin America, and the Far East.

A rise in feed grains. Feed grain exports jumped about 50 percent, from 28 million tons in 1972 to 41½ million in 1973.

Part of this was due to lower production in major exporting countries and part to expanding livestock production. More feed grains were used in feed rations instead of fishmeal and peanut meal, which were in short supply, and instead of other high-price protein and nongrain, high carbohydrate feeds.

Feed grain exports to Japan more than doubled, reaching a record 9 million tons. Exports to the enlarged European Community jumped to 10 million tons, and the U.S.S.R. moved up to become our third largest market, buying 4.2 million tons.

Oilseeds up nearly four-fifths. Ranking right behind grains in export value were oilseeds and products. They accounted for $4.3 billion, more than a fourth of total farm exports last year.

Export Power

Last year, the U.S. achieved its first positive balance of trade since 1970—due in large part to our agricultural exports.

The record $9.3 billion surplus in farm trade is the equivalent of our oil imports for calendar 1973.

About one-fifth of our net farm income came from agricultural exports in fiscal 1973—and about one-half of the increase in net farm income over fiscal 1972 was a result of farm exports.

With each dollar increase in farm exports generating $2.25 of business in the economy, agricultural exports were responsible for generating an estimated $28.8 billion in business activity in fiscal 1973. Of that, less than half—$11.7 billion—occurred in the farm sector.

The food processing sector alone received more than a $4.8 billion boost; the transportation sector, $1.7 billion; and the wholesale and retail sector, $1.8 billion.

In fiscal 1973, farm exports provided directly or indirectly more than 450,000 non-farm jobs —in the service sector, manufacturing, wholesale and retail trade, food processing, and transportation and warehousing.

[Based on speech by Secretary of Agriculture Earl L. Butz to Great Lakes States Area Development Council, Ft. Wayne, Indiana, March 18, 1974.]

This was nearly 80 percent more than in 1972, with higher prices accounting for more than three-quarters of the increase.

As in the case of feed grains, the surge in our oilseed exports was largely to meet the very tight world protein situation last year.

Peru, the world's largest fishmeal exporter, exported only about a fifth of what it normally does, due to sharply reduced anchovy catches since 1972 when a change in the ocean current drove the anchovies to deeper water.

In addition, sunflowerseed production was down in the U.S.S.R. and Eastern Europe, and peanut production was down in Africa and Asia.

Big supplier. Over half the U.S.'s production of soybeans is exported in the form of meal or bean, accounting for well over half of the world's exports of oilseeds or meal.

Our soybean exports were up 50 million bushels to a record 486 million bushels as livestock production increased around the world. Most of the gain went to the enlarged European Community, the U.S.S.R., Spain, Poland, Israel, Japan, and Korea.

Exports of oil cake and meal were up more than a million tons, to 5.3 million short tons. Higher prices pushed the value up 127 percent. Spain, Yugoslavia, Austria, Greece, Eastern Europe, Portugal, and Japan accounted for most of the increase.

Cottonseed and soybean oil exports totaled 1.5 billion pounds, 270 million pounds below 1972.

The decline is attributable to the 341-million pound dropoff in soybean oil exports from 1972, partly due to more U.S. soybeans being crushed overseas.

Cottonseed oil exports rose some 70 million pounds. Major markets include Egypt. Venezuela, Mexico, the European Community, Sweden, Japan, and South Africa.

Fresh fruits gain. Fruits and preparations jumped in export value by a fourth to $535 million. Higher prices accounted for more than half the increase. Most of the gain was in fresh products, although canned fruits showed a substantial increase despite smaller supplies and higher prices.

Because of smaller supplies due to freezing weather in many U.S. producing areas, less dried fruit was exported although the value was up.

Fresh vegetables led the 46-percent gain in exports of vegetables and preparations which reached a record $366 million last year. Canned and dehydrated vegetables also made large gains, but hops fell from 1972's high due to a big crop of better quality hops in Western Europe.

Higher hide exports. Cattle hides led exports of animals and animal products to an alltime high of $1.6 bil-

lion. They accounted for 17 percent of the overall increase and totaled nearly $400 million, more than a third above 1972.

Part of the increase was due to an embargo in Argentina that lowered exports there and part to a sharp increase in demand for leather and leather products.

Meat and meat products contributed to the gain in exports also, up more than 80 percent to a total of $374 million. Pork exports to Japan more than doubled to 97 million pounds and nearly quadrupled to Canada to 43 million pounds. Beef exports were up more than 50 percent, with larger shipments going to Japan, the Caribbean and the principal markets in Europe.

Substantial increases in red meat prices resulted in many countries importing more U.S. poultry products to meet the rapidly expanding demand for meat. Exports totaled $120 million, with increases in turkeys, fresh and frozen chickens, and eggs.

Dairy exports down. A drop in butter and nonfat dry milk exports accounted for most of the $90-million decrease in the value of dairy exports from 1972. We exported an uncommonly large amount of butter in 1972 to the United Kingdom because of reduced supplies in the European Community and New Zealand. As for nonfat dry milk, our consumption went up last year at the same time production went down, reducing supplies for export and making necessary importing nearly 300 million pounds in 1973. Most of the decline in our nonfat dry milk exports was under Government-financed programs or for welfare and food lunch programs in developing countries.

The Far East—especially the People's Republic of China and Japan, accounted for most of the near 80-percent jump in cotton exports from 1972.

At 5.4 million bales, exports were the highest they've been in nearly 15 years. Mainland China took more than 600,000 bales compared to none in 1972 and Japan imported 1.1 million bales—400,000 more than in 1972. Canada and the enlarged EC also took more cotton.

Tobacco exports rose slightly to 639 million pounds and value was up 6 percent, due mainly to higher prices. The gains came from burley and tobacco stems. Flue-cured tobacco exports were down slightly although value was up 6 percent due to higher prices. In the principal U.S. tobacco markets of Europe and Asia, cigarette smoking continued to gain in 1973. Tobacco production in Africa, the major U.S. competitor in the world market, fell about 7 percent.

[Based on "U.S. Farm Exports Rocketed to a Record $17.7 Billion in 1973," an article by Dewain H. Rahe, Foreign Demand and Competition Division, in *Foreign Agricultural Trade of the United States*, February 1974.]

1973 Capped 12 Years Of Declining Coffee Use

The American coffee hound . . . a declining species?

Figures show that U.S. consumers drank less coffee again in 1973—just as they've done for the past 12 years.

Coffee drinking on a green bean basis amounted to 13½ pounds per person last year. Of this, just under 11 pounds were in regular coffee, down somewhat from 1972, while per capita use of instant coffee held steady at 2.8 pounds.

Domestic coffee roastings—totaling nearly 2.6 billion pounds during 1973—also slipped from year-earlier levels. Instant coffee led the downturn with 6 percent.

On the world scene, coffee production for the 1973/74 crop year ending this month is forecast at 65½ million bags at 132 pounds each.

Off 15 percent from last year, the new crop could prove the smallest since 1970/71. And after producing countries take what they need for themselves, exportable supplies could fall more than 20 percent shy of last year's mark.

With projected output as much as 10 million bags short of demand, consumer countries will be digging deep into their stocks to fill the gap. Experts look ahead to a more favorable crop in 1974/75, however. Prospects are promising in Brazil, where trees have recovered from the devastating frost of July 1972.

Export restrictions among producing countries may further drawdown world coffee supplies. Last November, 16 producing countries of the Interafrican Coffee Organization convened in Addis Ababa to discuss slowing the flow of African coffees entering the world marketplace.

Shortly before the Addis Ababa meeting, African and Malagasy Coffee Organization countries met in Paris and issued a statement reconfirming their intention to restrict supplies. The reason: Robusta coffee prices still weren't high enough to offset two dollar devaluations in 2 years.

On the import side, the U.S. bought nearly 2.9 billion pounds of green coffee last year, up slightly from the year earlier. Roasted coffee imports were up 7 million pounds to 43 million pounds while imports of instant coffee hit a record 157 million pounds (green bean equivalent).

Prices also moved higher. Fourth quarter 1973 brought further price hikes for all green coffees except Colombian Manizales.

In December Brazil announced it would raise green coffee prices by more than 6 percent during first half 1974. The increase is slated to come in successive steps with similar increases scheduled for instant coffee. To maintain prices at higher levels, Brazil plans to limit its first half 1974 exports to just over 5 million bags—versus around 9 million during January-June 1973.

Due partly to Brazilian cutbacks, U.S. coffee imports may trickle off some this year. Meantime, wholesale green and retail roasted and instant coffee prices will probably hover at current high levels for some time. Faced with this prospect, the American consumer will more than likely lower his coffee intake during 1974.

[Based on *National Food Situation*, NFS-147, February 1974.]

FARM EXPORTS TO HIT $20 BILLION

U.S. agricultural exports are expected to total a record-smashing $20 billion in the fiscal year ending June 30, 1974, well above the previous high of $12.9 billion reached in 1972/73.

Agriculture's contribution to the U.S. trade balance—forecast at $10.5 billion—will also set a new record. Last year's share was $5.6 billion. The increase could offset last year's deficit of $3.5 billion and return the U.S. to a favorable overall trade balance.

The growth in the value of farm exports in 1973/74 will be due largely to higher prices, especially for wheat, feed grains, rice, soybeans, soybean meal, cotton, and most horticultural products.

The volume of major bulk commodity exports should rise about 3 million metric tons from last year's alltime high of 92 million.

The leading U.S. farm exports will be grains, oilseeds and products, livestock and meat products, and cotton.

Grain exports should climb to $10.2 billion and account for over half the gain in agricultural exports. Exports of oilseed and meal are likely to reach $4.8 billion, nearly a quarter of the total farm export value. Cotton exports should rise a million bales above last year's total to about 5½ million. Livestock and meat products will be the third largest money earner. Exports should total about $1.5 billion, up around $300 million from last year.

Gains are expected for fruits and vegetables—exports will top $1 billion for the first time—and for tobacco, poultry, and sugar and tropical products. Dairy exports, however, should decline sharply.

Japan, our largest single market for farm products, is expected to make record purchases of $3.4 billion this fiscal year. Major gains will be in wheat, feed grains, fresh fruits, cotton, and tobacco. Exports to other South and Southeast Asian countries are expected to increase substantially to around $3 billion.

Western Europe will take over $6 billion in U.S. farm products. The sharp increase from last year's $4.5 billion will primarily reflect higher volumes and prices for grains, soybeans, and soybean products. U.S. exports to Eastern Europe are also expected to grow, from $454 million last year to $900 million.

Shipments to the U.S.S.R. will trail last year's $955 million because of the very favorable outturn of Soviet crops in 1973. U.S. exports to the U.S.S.R. will probably total around $550 million but could go higher if the U.S.S.R. purchases soybeans.

The People's Republic of China is expected to raise its purchases to around $1.2 billion, largely through bigger takings of wheat, cotton, and soybeans, ERS reports.

Our biggest market for farm exports, Japan, is expected to buy a record $3.4 billion from us this fiscal year.

The value of U.S. farm products to Latin America will probably approach $2 billion, up from $1.1 billion last year. Most of the increase will be in wheat, feed grains, soybeans, and soybean products.

Exports to Canada should top $1 billion this fiscal year, compared with $824 million in 1972/73. The increase will be due mainly to stepped-up purchases of horticultural products, live animals, and cotton.

Exports to West Asia should total over $950 million, nearly twice the level of a year ago. Major gains will be in grains and preparations—including rice, wheat, and oilseed products—and fruits and vegetables. Substantial foreign exchange accumulation from increased crude petroleum prices will greatly strengthen the oil-producing countries' ability to purchase agricultural products.

Africa's imports of U.S. farm products are expected to more than double to $900 million. Most of the increase will be in grains, especially wheat and wheat products. Also, more rice and feed grains will probably be shipped.

[Based on *Outlook for U.S. Agricultural Exports*, by Thomas A. Warden, Foreign Demand and Competition Division.]

U.S. AGRICULTURAL EXPORTS: 1972/73 VS. FORECAST FOR 1973/74

	1972/73	1973/74 forecast	Change
	Million dollars		*Percent*
Grain and feed	5,616	10,200	+82
Oilseeds and products	3,507	4,800	+37
Livestock and meat products	1,184	1,500	+27
Fruits and vegetables	790	1,025	+30
Dairy products	77	50	−35
Poultry products	98	140	+43
Tobacco	640	700	+ 9
Cotton, including linters	755	1,300	+72
Sugar and tropical products	207	285	+38
Total	12,894	20,000	+55

Recent Publications

Economic Impacts of Applying Selected Pollution Control Measures on Michigan Dairy Farms. D. L. Good, C. R. Hoglund, and L. J. Connor, Michigan State University, and J. B. Johnson, Farm Production Economics Division. Michigan State University Research Report 225.*

The purpose of this study was to determine the economic impact on Michigan dairy farmers of complying with selected pollution control measures. Specifically determined were the effect on investment, labor requirements, milk production costs, and return to operator's labor and management.

Effects of Selected Tax Provisions on Growth of Columbia Basin Farms: A Simulation Analysis. Norman K. Whittlesey, Washington State University, and Dwaine E. Umberger, National Economic Analysis Division. Washington Agr. Expt. Sta. Bull. 787.*

What effects do Federal and State tax provisions have on farm growth? This study uses a simulation model in analyzing selected tax provisions and finds the selected Federal provisions had only marginal impacts on individual farm growth rates. Adoption of a State income tax had a positive effect on the growth of the full-owner farm and a negative effect on the tenant farm.

Poultry and Egg Statistics Through 1972. Commodity Economics Division. Stat. Bull. 525.

This supplement to the ERS periodical the *Poultry and Egg Situation* contains tables on poultry numbers and production, consumption and prices, and hatchings, storage, and trade.

Historical Guide to Federal Water Pollution Control Laws Affecting Food Processing. Peter M. Emerson, Commodity Economics Division, ERS-543.

To help food processors understand regulations regarding water pollution, this report traces the history of Federal water control policies and discusses the provisions of recent legislation.

Effects of Realizing Price and Yield Expectations on Growth of Columbia Basin Farms: A Simulation Analysis. Norman K. Whittlesey, Washington State University, and Dwaine E. Umberger, National Economic Analysis Division. Washington Agr. Expt. Sta. Bull. 789.*

The major purpose of this study was to analyze the effect of realizing expected prices and yields on the growth of farms in the irrigated Columbia Basin Project of central Washington, a general farming area with many crop alternatives.

Single copies of the publications listed here are available free from The Farm Index, Economic Research Service, Rm. 1459–So., U.S. Department of Agriculture, Washington, D.C. 20250. However, publications indicated by (*) may be obtained only by writing to the experiment station or university. For addresses, see July and December issues of The Farm Index.

Agriculture in the United States and the People's Republic of China, 1967-71. Frederick W. Crook and Linda A. Bernstein, Foreign Demand and Competition Division. FAER-94.

This study compares the agricultural sectors of the U.S. and the People's Republic of China, utilizing recent statistical information and estimates on farm structures, natural resources, manmade agricultural inputs, crop production, livestock numbers, foreign trade, and overall rates of agricultural growth.

Research and Data Needs for Land Use Planning. Prepared by the Basic Data and Research Subgroup for the Committee on Planning and Policy for Land Use and Land Conservation, USDA.

This report discusses land use research issues and data problems; evaluates ongoing research; suggests needed research approaches; and proposes early action activities for research and data development.

Economic Effects of Pawtuckaway State Park, Part III, Impact on Property Values in the Surrounding Area. C. T. K. Ching, University of New Hampshire, and G. E. Frick, Commodity Economics Division. University of New Hampshire Research Report 31.*

Results of a statistical model indicated that the park had no detectable influence on property values.

Farm Real Estate Taxes—Recent Trends and Developments. Jerome M. Stam and Eleanor L. Courtney, Economic Development Division. RET-13.

Taxes levied on U.S. farm real estate totaled a record $2.77 billion in 1972, up 4.1 percent from 1971 but the lowest percentage increase in 8 years. Market values of privately owned farm real estate rose somewhat faster than taxes in 1971-72, causing the effective rate of the tax to decline.

Farm Real Estate Market Developments. William D. Crowley, Jr., National Economic Analysis Division. CD-78, Supplement No. 1.

The index of farm real estate values shot up 21 percent in the year ended November 1, 1973. This was the second biggest 12-month increase on record, trailing only the 22-percent rise for March 1, 1920.

American Agriculture—Its Capacity To Produce. Commodity Economics Division, Natural Resource Economics Division, and National Economic Analysis Division. ERS-544.

When demand for U.S. agricultural products rose sharply last year, people began asking whether we had the productive capacity to meet the higher demand. Some of the answers are in this report, reprinted from The Farm Index, including projections on land use for 1985, production of major commodities, yields and harvested acreage, and a discussion of major problems facing agriculture.

Economic Trends

Item	Unit or Base Period	1967	1973 Year	1973 Jan.	1973 Nov.	1973 Dec.	1974 Jan.
Prices:							
Prices received by farmers	1967=100	—	172	144	181	184	200
Crops	1967=100	—	164	131	181	193	211
Livestock and products	1967=100	—	178	153	182	178	192
Prices paid, interest, taxes and wage rates	1967=100	—	145	134	151	154	157
Family living items	1967=100	—	138	129	146	147	149
Production items	1967=100	—	146	132	153	156	161
Ratio [1]	1967=100	—	118	107	119	119	127
Wholesale prices, all commodities	1967=100	—	135.5	124.5	141.8	145.3	150.4
Industrial commodities	1967=100	—	127.0	120.0	133.5	137.1	140.5
Farm products	1967=100	—	176.3	144.2	184.0	187.2	202.6
Processed foods and feeds	1967=100	—	148.1	132.4	151.9	155.7	162.1
Consumer price index, all items	1967=100	—	133.1	127.7	137.6	138.5	139.7
Food	1967=100	—	141.4	128.6	150.0	151.3	153.7
Farm Food Market Basket: [2]							
Retail cost	1967=100	—	142.3	127.2	151.2	152.7	155.5
Farm value	1967=100	—	167.0	142.0	168.9	173.6	184.7
Farm-retail spread	1967=100	—	126.6	117.8	140.0	139.5	137.0
Farmers' share of retail cost	Percent	—	46	43	43	44	54
Farm Income: [3]							
Volume of farm marketings	1967=100	—	112	127	159	130	131
Cash receipts from farm marketings	Million dollars	42,693	60,671	6,249	10,307	8,386	9,200
Crops	Million dollars	18,434	25,075	2,828	6,320	4,815	5,000
Livestock and products	Million dollars	24,259	35,596	3,421	3,987	3,571	4,200
Realized gross income [4]	Billion dollars	49.0	90.5	—	—	108.3	—
Farm production expenses [4]	Billion dollars	34.8	64.4	—	—	77.9	—
Realized net income [4]	Billion dollars	14.2	26.1	—	—	30.4	—
Agricultural Trade:							
Agricultural exports	Million dollars	—	9,404	1,136	2,082	1,976	1,839
Agricultural imports	Million dollars	—	6,459	649	857	759	787
Land Values:							
Average value per acre	Dollars	[6] 168	[7] 219	—	—	—	[8] 247
Total value of farm real estate	Billion dollars	[6] 181.9	[7] 230.5	—	—	—	[8] 258.7
Gross National Product: [4]	Billion dollars	793.9	1,289.1	—	—	1,337.5	—
Consumption	Billion dollars	492.1	804.0	—	—	825.2	—
Investment	Billion dollars	116.6	202.1	—	—	213.9	—
Government expenditures	Billion dollars	180.1	277.1	—	—	285.6	—
Net exports	Billion dollars	5.2	5.8	—	—	12.8	—
Income and Spending: [5]							
Personal income, annual rate	Billion dollars	629.3	1,035.4	989.1	1,079.4	1,089.0	1,087.0
Total retail sales, monthly rate	Million dollars	26,151	41,928	40,707	42,976	42,116	42,902
Retail sales of food group, monthly rate	Million dollars	5,759	8,802	8,476	9,135	9,264	9,520
Employment and Wages: [5]							
Total civilian employment	Millions	74.4	[9] 84.4	[9] 82.6	[9] 85.6	[9] 85.7	[9] 85.8
Agricultural	Millions	3.8	[9] 3.5	[9] 3.5	[9] 3.6	[9] 3.6	[9] 3.8
Rate of unemployment	Percent	3.8	4.9	5.0	4.7	4.8	5.2
Workweek in manufacturing	Hours	40.6	40.7	40.3	40.6	40.7	40.2
Hourly earnings in manufacturing, unadjusted	Dollars	2.83	4.07	3.98	4.16	4.21	4.21
Industrial Production: [5]	1967 = 100	—	126	122	128	127	126
Manufacturers' Shipments and Inventories: [5]							
Total shipments, monthly rate	Million dollars	46,449	72,207	68,401	77,019	75,355	79,054
Total inventories, book value end of month	Million dollars	84,655	120,870	108,187	118,435	120,870	122,096
Total new orders, monthly rate	Million dollars	46,763	74,621	70,016	79,441	76,811	80,928

[1] Ratio of index of prices received by farmers to index of prices paid, interest, taxes, and farm wage rates. [2] Average annual quantities of farm food products purchased by urban wage earner and clerical worker households (including those of single workers living alone) in 1959-61—estimated monthly. [3] Annual and quarterly data are on 50-State basis. [4] Annual rates seasonally adjusted fourth quarter. [5] Seasonally adjusted. [6] As of March 1, 1967. [7] As of March 1, 1972. [8] As of March 1, 1973. [9] Beginning January 1972 data not strictly comparable with prior data because of adjustment to 1970 Census data.

Sources: U.S. Dept. of Agriculture (Farm Income Situation, Marketing and Transportation Situation, Agricultural Prices, Foreign Agricultural Trade and Farm Real Estate Market Developments); U.S. Dept. of Commerce (Current Industrial Reports, Business News Reports, Monthly Retail Trade Report and Survey of Current Business); and U.S. Dept. of Labor (The Labor Force and Wholesale Price Index).

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